

11116 South Towne Square, Suite 303 + St. Louis, MO 63123 + (314) 892-6322 + Fax (314) 892-6132

25 Oct 01

Mr. Sam Borries On-Scene Coordinator U.S. Environmental Protection Agency Region 5 **Emergency Response Branch** 77 West Jackson Boulevard (SE-5J) Chicago, IL 60604

Subject:

Letter Report

Dead Creek Site G

Sauget, St. Clair County, Illinois

Technical Direction Document No. S05-0108-004

Tetra Tech Contract No. 68-W-00-129

Dear Mr. Borries:

The Tetra Tech EM Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) is submitting the enclosed letter report for Dead Creek Site G in Sauget, St. Clair County, Illinois. If you have questions or comments regarding the report or need additional copies, please contact me at (314) 892-6322, extension 23, or Thomas Kouris at (312) 946-6431.

Sincerely,

Joseph M. Parish

Tetra Tech START Project Manager

Enclosure

cc:

Lorraine Kosik, U.S. EPA START Project Officer Thomas Kouris, Tetra Tech START Program Manager LETTER REPORT
DEAD CREEK Site G
SAUGET, ST. CLAIR COUNTY, ILLINOIS



Tetra Tech EM Inc.

164319

LETTER REPORT DEAD CREEK Site G SAUGET, ST. CLAIR COUNTY, ILLINOIS

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY Region 5 Emergency Response Branch 77 West Jackson Boulevard Chicago, IL 60604

Date Prepared:

TDD No:

Contract No.:

Prepared by:

START Project Manager:

Telephone No.:

U.S. EPA On-Scene Coordinator:

Telephone No.:

25 Oct 01

S05-0108-004

68-W-00-129

Tetra Tech EM Inc.

Joseph M. Parish

(314) 892-6322

Sam Borries

(312) 353-2886

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The Tetra Tech EM Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) prepared this report in accordance with the requirements of Technical Direction Document (TDD)

No. S05-0108-004 issued by the U.S. Environmental Protection Agency (U.S. EPA). The scope of this TDD was to conduct oversight activities at Dead Creek Site G in Sauget, St. Clair County, Illinois.

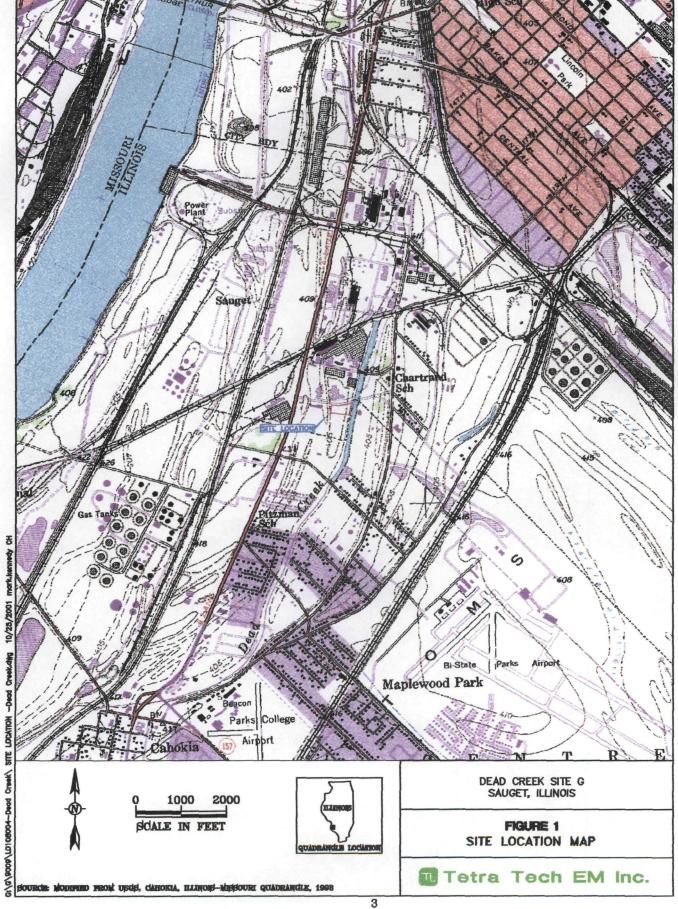
START was tasked to prepare a safety plan, document site conditions and activities through written logbook notes and photographs, conduct air monitoring, and prepare samples for shipment. Specific elements of the task included (1) procuring a contractor to excavate three buried drums containing contaminated materials, including documents and soil samples; (2) removing the materials from the drums; (3) photographing the documents and samples; and (4) repackaging the samples for shipment and laboratory analysis. Site activities were conducted by START members Joseph Parish, Sara Giedeman, and Jennifer Mueller. This report discusses site background information, site activities, and follow-up activities requested by U.S. EPA and provides a summary of START's activities. A photographic log of site activities is included in Appendix A, and shipment and chain-of-custody records are included in Appendix B.

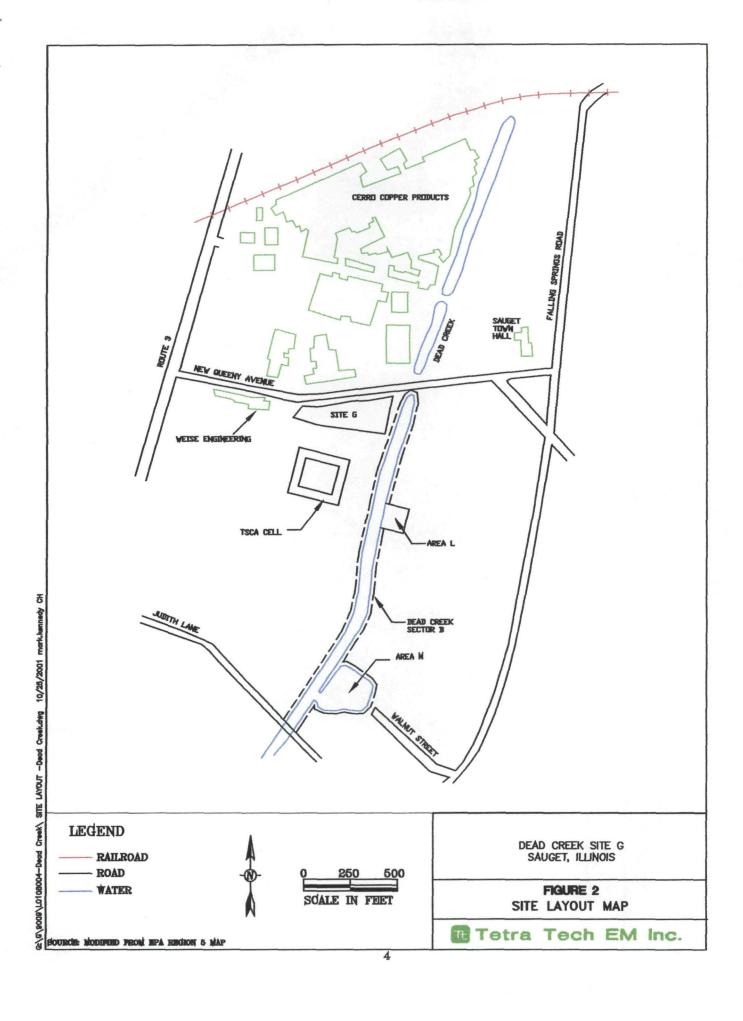
2.0 SITE BACKGROUND

Dead Creek Site G covers approximately 5 acres and is located in west-central St. Clair County, Illinois (see Figure 1), directly across the Mississippi River from St. Louis, Missouri. It is bordered by New Queeny Avenue on the north, Dead Creek on the east, the Dead Creek Site TSCA remediation cell on the south, and Weise Engineering on the west (see Figure 2).

Mr. Leo Sauget operated Site G from about 1952 to 1966 and conducted landfilling operations that were open to all industries in Sauget. In 1966, Leo Sauget sold the site property to Harold Weise, and this ended systematic landfilling operations at the site. However, until a fence was constructed around the site property in 1988, sporadic illegal dumping occurred at the site.

In Oct 84, the Illinois Environmental Protection Agency inspected the site to evaluate proposed remediation work. From 1985 to 1987, Ecology & Environment, Inc., conducted an expanded site investigation of the site on behalf of U.S. EPA. Analyses of surface and subsurface soils showed high concentrations of organic contamination throughout the site. U.S. EPA requested that Cerro Copper Products, Monsanto Corporation, and Weise Engineering supply funds for construction of the site fence, which was installed in 1988. After several fires occurred at the site in 1994, U.S. EPA sought further removal action at the site. During removal activities occurring in 1995, approximately 15,000 cubic yards of on-site soil was excavated and consolidated. The excavated areas were covered with 18 to 24 inches of clean soil and were seeded to reinstate the vegetative cover. About 1,200 cubic yards of oil pit material was stabilized and solidified. On 28 Jul 95, U.S. EPA directed the burial of three drums of materials, including samples and documents, at the site for security purposes. On 07 Aug 95, the removal action was completed. Site G, along with all Sauget Area 1 sites, is proposed for listing on the National Priorities List (NPL).





START conducted field activities at Dead Creek Site G from 20 through 22 Aug 01. These activities are discussed below.

3.1 MONDAY, 20 AUG 01

On 20 Aug 01, START arrived at the site at approximately 1345 and met with Sam Borries, the U.S. EPA on-scene coordinator (OSC), as well as Mike McAteer and Jon Beihoffer of U.S. EPA. This team marked the location of the buried drums; brush-hogged overgrown vegetation; and set up a canopy, tables, and chairs to prepare for the planned site activities. START left the site at 1605.

3.2 TUESDAY, 21 AUG 01

On 21 Aug 01, START arrived at the site at approximately 0730 and met with OSC Borries, Mr. McAteer, and Mr. Beihoffer, as well as Kevin Turner of U.S. EPA. Also on site were Gary Heller of Excel Environmental, which was subcontracted by START for the excavation work, and Frank Fick and Tom Gartzke from Environmental Operations, which was representing Solutia, the potentially responsible party (PRP) for the site. The OSC designated a "hot zone" and isolated this area with banner guard. As planned, the three drums of contaminated materials were excavated. START, wearing Level C personal protective equipment (PPE), monitored air quality during the excavation with a photoionization detector (PID). No readings above background levels were registered during the excavation process.

The three drums were staged and opened. PID readings taken inside the open drums were as high as 5.5 parts per million (ppm), but the ambient air quality around the drums remained at background levels. START photographed the contents of each drum (see Appendix A) and then removed the drums' contents and staged them on an area of ground covered with visqueen. The drums contained jars of samples collected and various documents found during the 1995 removal action. Next, the materials were moved to visqueen-covered tables and separated for examination and documentation.

The jars of samples were separated from the documents, and the jars' contents were placed in disposable pie pans and homogenized. Each sample was then split three ways into 4- or 8-ounce sample jars by

U.S. EPA personnel. If a sample number was present on an original sample jar, this number was retained; if no sample number was present, a number was assigned beginning with S001. After a sample was split, the three new jars along with the original jar were photographed for documentation purposes. A total of 46 samples were processed. The split samples were placed in iced coolers labeled "A," "B," and "C." Split samples labeled "A" were for the U.S. EPA National Enforcement Investigation Center; split samples labeled "B" were to be held at Tek Lab to be archived; and split samples labeled "C" were for the PRP representative, Environmental Operations. Chain-of-custody forms were placed in the coolers, and the coolers were sealed in accordance with chain-of-custody protocol. A sampling summary is presented in Table 1.

TABLE 1
SAMPLING SUMMARY

Sample No.	Description	PID Reading (ppm)
S001	White, chunky material with dark specks	NR
S002	Gray, powdery material	NR
S003	Bright orange, crystalline powder	NR
WA-25	Small, black chunks and powdery crystals	NR
S004	Grayish-tan powder	NR
S005	Off-white, yellowish crystals	NR
WA-29	Dark grayish-brown, clay chunks	NR
WA-33	Dark grayish-brown, large, clay chunks with powder	NR
WA-30	Black, crystalline material	NR
WA-20	Light gray, sandy powder	NR
WA-24	Dark grayish-brown, clayey chunks	NR
WA-21	Dark grayish and black, crystalline powder	NR
WA-23	Dark grayish-brown, silty material with some chunks	NR
WA-26	Light grayish to black powder and larger chunks	0.7
WA-27	Light gray, sandy powder and larger chunks	2.4
WA-22	Light gray, wet, large, rocky material with gray liquid	ND
WA-18	Dark brown, sandy clay chunks	0.3
WA-19	Black, crystalline powder with several chunks	1.1
WA-28	Dark gray to black powder with trace rocky material	ND
WA-17	Dark brown, clumpy, sandy clay	1.4

TABLE 1 (Continued)

SAMPLING SUMMARY

Sample No.	Description	PID Reading (ppm)						
S006	Black, tar-like, material with a strong odor	364						
S007	Light brown, clumpy, sandy silt	ND						
S008	Bright yellow, transparent liquid	0.6						
S009	ND							
WA-39	Dark brown to reddish-brown sand with clumps	ND						
S010	Bluish-gray, sandy, small, clumpy, beady material	0.4						
S011	Large clumps of orange and black, sandy, silty material	19						
WA-38	Dark brown and black, sandy material	0.2						
S012	White powder with trace clumps	7.5						
S013	Yellowish-tan beads	0.2						
WA-46	Black material with trace dark maroon and dark blue crystals	ND						
WA-39-Z	Duplicate of WA-39	1.0						
S014	Black, fine powder with trace small clumps	4.5						
S015	Yellowish-tan, wet, sandy silt	0.4						
S016	Dark brown, silty clay with trace of organic material	ND						
OP-1-B	Gray, tan, and brown pellets	ND						
SH-BK	Black clumps of crystals with a strong odor	166						
OP-1- WHITE	White, gray, and black, moist, chunky clay	8.3						
WA-47	Bright yellow, large crystalline clumps with black traces	11.7						
WHITE-1	White powder with trace gray powder	ND						
S017	Orange, yellow, and brown mixture of pellets	ND						
WA-46	Orange and brown, silty clay chunks	4.5						
WA-45	Small yellow and tan beads and pellets with rock	ND						
WA-40	Dark brown, moist pellets with trace light brown pellets	1.0						
WA-48	Bright orange, silty clumps	21.8						
WA-44	Bright orange and black, crystalline clumps	2.0						
S018	bag of soil	NR						
Notes: ND = Not detected PID = Photoionization detector NR = Not recorded ppm = Part per million								



After all the samples were split, START, the OSC, and other U.S. EPA personnel began removing documents from their packaging to be examined and selected for photodocumentation. Selected documents were then placed in new, 55-gallon drums, which were sealed in accordance with chain-of-custody protocol for storage overnight. START left the site at 1815.

3.3 WEDNESDAY, 22 AUG 01

On 22 Aug 01, START arrived at the site at approximately 0730 and met with the OSC and other U.S. EPA personnel. Also on site were PRP representatives and U.S. Department of Justice (DOJ) personnel. The DOJ personnel were present to observe Site G activities and the Sauget Area 1 removal action. Later in the day, a Tek Laboratory representative came on site to pick up the split samples labeled "B," which were to be archived. The split samples labeled "A" were shipped to the U.S. EPA National Enforcement Investigation Center in Denver, Colorado, and the split samples labeled "C" were transferred to the custody of the PRP representative, Environmental Operations. Copies of chain-of-custody forms are included in Appendix B.

In the presence of the PRP representatives, START, the OSC, and other U.S. EPA personnel broke the custody seals on the new, 55-gallon drums that had been sealed on 21 Aug 01; removed the documents; and began staging them for photodocumentation. The OSC and other U.S. EPA personnel selected the documents to be photographed. Each selected document was assigned a number and was photographed individually with a digital camera. Photographed documents were placed in resealable bags in lots of approximately 25 documents per bag. This process continued until a total of 378 documents had been photographed. The photographs were stored on diskettes for later transfer to compact discs (CD).

Upon completion of the documentation effort, used PPE; unreadable documents; and the empty, original sample jars were placed in four new, 55-gallon drums. These drums, along with the three old drums, were placed in the previously excavated hole and were reburied by Excel Environmental. The three old drums were crushed prior to reburial. START left the site at 1440.

As requested by U.S. EPA, START is compiling all the photodocumention recorded at Site G on CDs. Five CD copies will be made, and four of the five copies will be distributed to OSC Borries; the U.S. EPA National Enforcement Investigation Center in Denver, Colorado; Environmental Operations, the PRP representatives; and Tetra Tech. The fifth copy will be saved by START as a backup. The analytical results for the split samples will not be reported to or evaluated by START. Evaluation of the analytical data is beyond the scope of the TDD. These data are to be used by U.S. EPA for litigation purposes.

U.S. EPA tasked START to oversee excavation of three drums of materials left from 1995 removal activities at Dead Creek Site G. START's site activities occurred from 20 through 22 Aug 01. START documented the site work, prepared samples for shipment, and photographed evidential documents and other materials as directed by OSC Borries. Used PPE, unused materials, and empty sample jars were placed in drums and were buried on site. The photographs were placed on CDs that were then distributed to various parties as directed by OSC Borries. The photographs are to be used as evidence for litigation. START does not anticipate any further activities under the TDD.

APPENDIX A PHOTOGRAPHIC LOG

(Five Pages)



S05-0108-004

Location:

Dead Creek Site G

Subject:

Start of drum excavation

Southeast Orientation: 21 Aug 01 Date:



Photograph No.: TDD Number:

S05-0108-004

Location:

Dead Creek Site G

Subject:

Drum 1 being removed from hole

Orientation: West

Date:

21 Aug 01



Photograph No.:

TDD Number:

Location: Subject:

S05-0108-004

Dead Creek Site G

Opening drums 1, 2, and 3

Orientation: South Date:

21 Aug 01



Photograph No.: TDD Number:

Location:

Subject:

S05-0108-004

Dead Creek Site G

Contents of drum 3

Orientation:

Southeast

Date:

21 Aug 01



5

S05-0108-004

Location:

Dead Creek Site G

Subject:

One sample split into three samples

Orientation: East

Date:

21 Aug 01



Photograph No.: TDD Number:

S05-0108-004

Location:

Dead Creek Site G

Subject:

Orientation: East

Date:

22 Aug 01

One of the many documents found inside the drums



7 S05-0108-004

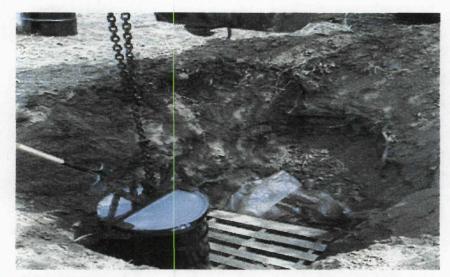
Location:

Dead Creek Site G

Subject:

Four new drums to be buried

Orientation: Southeast Date: 22 Aug 01



Photograph No.:

TDD Number:

S05-0108-004

Location:

Dead Creek Site G

Subject:

First new drum placed on palate

Orientation: Southeast

Date:

22 Aug 01



S05-0108-004

Location:

Dead Creek Site G

Subject:

All four new drums placed on palate

Orientation: East

Date:

22 Aug 01



Photograph No.:

10

S05-0108-004

Orientation: Southeast Date:

22 Aug 01

TDD Number: Location:

Dead Creek Site G

Subject:

Final view of Site G after four new drums were buried

APPENDIX B

SHIPMENT AND CHAIN-OF-CUSTODY RECORDS

(14 Sheets)

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77 West Jackson Boulevard

CHAIN OF CUSTODY RECORD Chicago, Illinois 60604 PROJ. NO. PROJECT NAME **Activity Code:** (04009 L.C.) SAMPLERS: (Print Name and Sign) NO. OF CON-COMP. **TAINERS** GRAB STA. NO. DATE TIME STATION LOCATION TAG NUMBERS site & drum 2 WARRAN WA-18A II 1300 1: WA-191 !! 1.7 1330 1 WIT-JAP " 1330 14 WATTA 1340 Site G drum 1 SOCIONA 1350 1 4 1340 5007A j, 4BOX 11 11 345 1 : SOMA A 1355 ί, 31 WA-39 1350 1 1. i, i 11 SOIDA 1405 ł e 1 1 ٠, SONA 0 EP ٠, 46102 1415 11 PLAS 2. Relinquished by: (Signature) Received by: (Signature) Date / Time Ship To: 19/28/01 3:50 Relinquished by: (Signature) Date / Time Received by: (Signature) ATTN: Relinquished by: (Signature) Received for Laboratory by: Date / Time Date / Time Airbill Number (Signature) Chain of Custody Seal Numbers Distribution: White - Accompanies Shipment; Pink - Coordinator Field Files; Yellow - Laboratory File

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230 South Dearborn Street Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

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77 West Jackson Boulevard Chicago, Illinois 60604

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77 West Jackson Boulevard

CHAIN OF CUSTODY RECORD Chicago, Illinois 60604 GROOM, LOI DEOC CYCEK SITE G **Activity Code:** 08.004 NO. SAMPLERS: (Print Name and Sign) OF CON-COMP. TAINERS GRAB STA. NO. | DATE | TIME STATION LOCATION TAG NUMBERS NA-46B 1430 drum 1440 11 1440 i_{j} DIUB 1445 1 SOUTH SNOB 1450 OP-1-E PHILITISE 1500 6 6 1 1505 White.B 11 15(X) Ι, 11 SH-BK PL 11 10 1 ; 11 WA-47A 1515 white B 1516 1 1 11 1-11 50178 1536 į, 590 1530 10 10 Date / Time Relinquished by: (Signature) Réceived by: (Signafure) Ship To: Relinquished by: (Signature) Date / Time Received by: (Signature) ATTN: Date / Time Relinquished by: (Signature) Received for Laboratory by: Date / Time Airbill Number (Signature) Chain of Custody Seal Numbers Distribution: White - Accompanies Shipment; Pink - Coordinator Field Files; Yellow - Laboratory File

REGION 5

77 West Jackson Boulevard

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REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

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77 West Jackson Boulevard Chicago Illinois 60604

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HEGION J Office of Enforcement 77 West Jackson Boulevard CHAIN OF CUSTODY RECORD Chicago, Illinois 60604

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77 West Jackson Boulevard

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